



Dovetail Jig Stand with Sliding Storage Drawer



Materials List:

24" x 48" x 1/2" Cabinet Grade Plywood
6" x 18" x 1/4" Hardboard or Masonite
(2) Knobs or Drawer Handles
(4) 1/2" #8 Wood Screws
(4) 1-1/4" #6 Wood Screws
Wood Glue

Tools Needed:

Table Mounted Router
MLCS # 5547/7847 Lock Miter Router Bit
MLCS #5470/5468/7770 Straight Cutting Router Bit
Clamps – (2) MLCS #9012 or (1) MLCS #9005 Merle Multi Corner Clamp
Drill
Table Saw

Making the Stand:

Crosscut the 2' by 4', 1/2" thick plywood to 18" by 24". From this, cut the top, bottom and sides to the dimension given in the cut list.

Install the lock miter router bit into your router table. Using the remaining scrap plywood from this piece, set-up and make a test joint as per the instructions for using the lock miter bit on the MLCS website (www.mlcswoodworking.com). After you have completed the set-up of the lock miter bit, rout the long sides of the top, bottom and sides of the stand pieces. The top and bottom pieces will get routed lying flat on the router table and the sidepieces will get routed standing vertical against the router table fence. (see figs. A & B)



fig A



fig B

Leave the lock miter bit set up in the router table, as it will also be used on the drawer box.

Apply glue to the tongue and groove sections of the lock miter profile and work quickly to assemble the four pieces together. Use clamps such as MLCS item #9012 Merle Multi-Corner Clamp to secure the assembly as the glue dries. (see fig C)



fig C

Making the Drawer Box:

From the remaining piece of plywood, rip two lengths 5" wide. From each of these lengths cut one piece at 18" long and one piece at 6" long.

Again you will use the lock miter router bit to cut the lock miter joint used to construct the drawer box. This time the lock miter cuts will be made across the 5" widths of the drawer box pieces. The drawer sides will get routed lying flat on the router table and the drawer ends will get routed standing vertical against the router table fence.

This time before gluing up the drawer assembly a 1/4" slot must be made in all four pieces to accept the drawer bottom. A 1/4" straight cutting router bit will be used to create the slot. The slot needs to be cut on the bottom edge of the length of each drawer box piece. Leave at least 1/4" below the slot to support the drawer bottom. The slot should be cut to a depth of 1/4" and made in one or two passes. (see fig D)



fig D

After cutting the slot in all four drawer box pieces the drawer bottom should be cut to the dimension given in the cut list.

Before gluing up the drawer box it is a good idea to do a dry fit of the assembly to make sure that everything will line up. If all fits together well, proceed by applying glue to the tongue and groove sections of the lock miter profile on one of the drawer ends on one end of each drawer side. Assemble these two joints and then slide the drawer bottom into the slot in this assembly. Working quickly, apply glue to the tongue and groove sections of the lock miter profile on the other drawer end and complete the drawer box assembly. Use clamps such as MLCS item #9012 Merle Multi-Corner Clamp to secure the assembly as the glue dries. (see fig E)



fig E

Preparing the Stand to accept the Dovetail Jig:

Center the dovetail jig onto the stand and mark the corresponding mounting locations onto the stand. Use a 1/8" drill bit to pre-drill the mounting screw locations. (see fig F)



fig F

From the remaining plywood, cut the base to the dimension given in the cut-list. Align the stand over the base, offsetting the front edge the same thickness as the base of the dovetail jig (this will provide 90 degree support to the work-piece when it is clamped under the front clamping bar). (see figs G and H)



fig G



fig H

Use a pencil to trace the layout of the stand onto the base. Remove the stand from the base.

Use a 1/8" drill bit to drill through holes into the base 1/4" inside of the front and back layout lines and 1-1/2" from the ends of the layout lines (these will allow the mounting screws to align with the center of the thickness of the stand side pieces). Carefully re-align the stand and base using the layout lines and turn this over to expose the bottom of the base (double sided tape may be used to aid with this step). Using a countersink drill bit, pre-drill the stand and countersink the bottom of the base through the existing 1/8" through holes. (see fig I) Use 1-1/4" long wood screws to attach the to the base.



fig I

Turn the stand/base assembly over and use the same countersink drill bit to drill two countersunk holes in each end of the base at a distance of 1" in from the edges (these holes will be used to attach your base assembly to your workbench).

Install two 1/2" woodscrews into the two predrilled holes on the top of the stand. Leave the screw heads 1/8" above the surface of the top, as the dovetail jig will slide into these. After aligning and sliding the dovetail jig over the top screws, use the two remaining 1/2" screws to secure the dovetail jig to the front side of the stand side. These two screws are to be tightened completely to secure the dovetail jig to the stand and keep it from tilting during use.

Finishing the Drawer:

After the glue has dried, remove the drawer box from the clamps. Attach a handle or knob to each drawer end, to allow pulling the drawer out the stand from either end. Slide the drawer into the drawer opening in the stand



Before using the Dovetail Jig and Storage Stand:

Before attempting to use this dovetail jig and storage stand, please clamp or screw the base to your workbench. Using this dovetail jig and storage stand without first securing it poses the risk of serious personal injury or damage to your power tools. Follow all safety precautions listed within the dovetail jig operations manual and those listed in your router owner's manual.

Parts Cut List

Description	Length	Width	Thickness	Quantity
Stand Top	18"	7"	1/2" plywood	1
Stand Bottom	18"	7"	1/2" plywood	1
Stand Sides	18"	6"	1/2" plywood	2
Base	22"	8"	1/2" plywood	1
Drawer Ends	5-7/8"	5"	1/2" plywood	2
Drawer Sides	18"	5"	1/2" plywood	2
Drawer Bottom	17-7/16"	5-7/16"	1/4" hardboard	1